West Plume B Project Area
(Part of the TIAA CERCLA Site)

Boundaries:

West Plume B is in Area B of the Tucson International Airport Area (TIAA) site. It is a narrow northwest trending plume located between Valencia Road and Drexel Road, and east of the main plume.

Site History:

- The TIAA site was placed on the National Priorities List (NPL) in 1983.

- In 1988, a record of decision (ROD) for the regional groundwater at TIAA was issued by EPA. This ROD also covered groundwater contamination in Area B which includes the West Plume B project area.

- Down-gradient monitor wells installed at the northwest portion of the Arizona Air National Guard (AANG) property and several private wells located farther north indicated that volatile organic compound (VOC) contamination in groundwater under the AANG property extended north of Valencia Road at least one mile.

- In 1998, a remedial investigation (RI) report for the former West-Cap property project area recommended additional investigations to fully characterize West Plume B.

Site Status:

- West Plume B is an EPA funded site, meaning that no existing or financially viable responsible party has been identified.

- With technical support from ADEQ, EPA has installed numerous groundwater monitoring wells to investigate the extent and magnitude of the groundwater contamination in West Plume B.

- Seismic reflection data were used to help characterize the hydrogeology in the area. These data, along with borehole information, were then used by ADEQ to develop a computer model of West Plume B to help estimate the fate and transport of trichloroethene (TCE) in the plume and to simulate potential remedial strategies.

- In May 2002, ADEQ completed an RI report for West Plume B. The report describes the extent and magnitude of groundwater contamination, and it identifies the AANG as the probable source of this contamination.

- In May 2002, EPA completed a feasibility study (FS) report. The FS analyzed remedial alternatives ranging from no action to active pump and treat.

- In June 2002, EPA issued a proposed plan for groundwater contamination at West Plume B.

- By Fall of 2003, EPA plans to issue an amended ROD for groundwater at this site.

Site Hydrogeology:

- In Area B of the TIAA site, which includes the West Plume B project area, the regional aquifer is comprised of two aquifer zones separated by a middle aquitard. The middle aquitard limits the vertical extent of contamination to the upper zone of the regional aquifer which is about 70 to 100 feet thick. The upper zone of the regional aquifer can also be further subdivided into upper and lower subunits.

- The lateral continuity of the upper and lower subunits is difficult to estimate due to heterogeneities resulting from the meandering streams that deposited these sediments. In places, the streams deposited relatively course-grained sands and gravels, but in other areas fine-grained overbank and floodplain deposits were left behind.

- The coarse-grained upper subunit at West Plume B appears to correlate with the upper subunit at the AANG project area, and is only five to ten feet thick.

- Seismic reflection data suggest that the coarse-grained upper subunit at West Plume B may actually be multiple units that dip slightly toward the south. The upper subunit is the first course-grained water bearing unit.

- The upper zone of the regional aquifer extends from the water table at a depth of about 75 to 90 feet below ground surface (bgs), to the top of the middle aquitard at a depth of about 175 feet bgs.

- The groundwater flow direction in the upper zone of the regional aquifer is generally toward the northwest, but flow within the course-grained upper and lower subunits is more variable.

- Groundwater contamination is thought to be confined to the upper subunit.

- More detailed descriptions of the hydrogeology of the West Plume B project area can be found in reports and studies available at the TIAA Information Repository.

Contaminants:

The current contaminants of concern in groundwater include VOCs, mainly TCE. TCE concentrations range from non-detect to about 13 parts per billion (ppb). Contaminants of concern at the site may change as new data become available.

Public Health Impact:

All municipal wells in the area that were contaminated with TCE have been shut down. Most of the domestic wells have either been shut down or converted to irrigation wells. However, a few residents with domestic wells with low levels of TCE have chosen to continue using their wells.

Community Involvement Activities:

The unified community advisory board (UCAB) conducts public meetings to discuss the site the third Wednesday of every other month (starting in January). Recent EPA fact sheets include: EPA Proposes Plan to Address Groundwater Contamination at West-Cap and West Plume B Project Areas (June 2002).

Information Repository:

Interested parties can review site information at the information repository at the TCE Superfund Information Library located at 101 W. Irvington Road, within the El Pueblo Branch Library in Tucson, (520) 791-4733. Site information is also available at both ADEQ's Southern Regional Office located at 400 W. Congress, Suite 433 in Tucson, and the main office located at 1110 West Washington Street, Phoenix. Files are available for review Monday through Friday from 8 a.m. to 5 p.m. Please call (520) 770-3361 to arrange a file review appointment at the Southern Regional Office or the ADEQ Records Center (602) 771-4378 or (800) 234-5677 (Arizona toll-free).

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*In Arizona, but outside the Tucson area, call toll-free at (888) 271-9302.
**Call EPA’s toll-free message line at (800) 231-3075.